



PATENT APPLICATION

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Noriyoshi OKUZONO et al.

Group Art Unit: 3723

Application No.: 10/596,724

Examiner: D. NGUYEN

Filed: June 22, 2006

Docket No.: 145181

For: CORE FOR WASHING SPONGE ROLLER

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This request is being filed with a Notice of Appeal and Petition for Extension of Time. Review of the June 15, 2010 Final Rejection is requested for the reasons set forth in the attached five or fewer sheets.

Should any questions arise regarding this submission, or the Review Panel believe that anything further would be desirable in order to place this application in even better condition for allowance, the Review Panel is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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Date: December 15, 2010

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REMARKS

Status of Pending Claims

Claims 1 and 3-6 are pending in this application. All claims stand finally rejected.

No amendments are being filed with this request. Claim 1 is the only independent claim.

II. Grounds of Rejection Presented for Review

The following grounds of rejection is presented for review: Claims 1 and 3-6 are rejected under 35 U.S.C. §103(a) over Dickey et al. (U.S. Patent No. 6,240,588).

Applicants respectfully submit that the legal and factual bases of the rejection contain clear deficiencies.

III. Independent Claim 1 is Patentable Over Dickey

Dickey fails to disclose and would not have rendered obvious the claimed combination of features recited in independent claim 1. For example, Dickey fails to disclose and would not have rendered obvious "a diameter of the bore is 10 to 20 mm, a diameter of the small holes is 2.5 to 5 mm, and a total of cross-sectional areas of the plurality of the small holes is 1.2 to 5 times larger than a cross-sectional area of the bore," as recited in independent claim 1 (emphasis added).

A. The Law Surrounding Obviousness of Ranges

A *prima facie* case of obviousness can be established for a claimed range of parameters if the prior art discloses a range that partially overlaps with or lies completely within the claimed range (see MPEP §2144.05(I)).

If the prior art fails to disclose such a range, a *prima facie* case of obviousness can only be established if the general conditions of a claim are shown in the art, and where the claimed range of parameters is a mere optimization of the general conditions (see MPEP §2144.05(II)). However, a particular parameter must first be recognized as a result-effective variable (a variable which is recognized as achieving a particular result), before the parameter



can be considered "optimizable" (see MPEP §2144.05(II)(B), citing *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)). Applicants need not show criticality for the claimed range of parameters unless (1) the parameter is recognized in the prior art as a result-effective variable, and (2) the claimed range is a mere optimization of the result-effective variable.

B. The Office Action's Assertions are Contrary to Law

The Office Action acknowledges that Dickey fails to disclose ranges of parameters that overlap or lie completely within the claimed ranges of independent claim 1 (see page 2 of the Office Action). Thus, the Office Action can establish a *prima facie* case of obviousness only if each of the claimed ranges of parameters recited in independent claim 1 are recognized by the prior art as result-effective variables.

Dickey does not recognize that the claimed ranges of parameters recited in independent claim 1 are result-effective variables. Dickey does not disclose that the diameter of the bore, the diameter of the small holes, and the ratio of the total cross-sectional area of the holes and the cross-sectional area of the bore can be modified in order to gently feed cleaning liquid to a sponge roller and allow rectification of the liquid by the sponge roller. At best, Dickey merely discloses decreasing a diameter of small holes located downstream of the core in order to increase the pressure of the cleaning liquid flowing through the core. Such a teaching does not establish that the diameter of the small holes is a "result-effective variable" because the "result" achieved by Dickey is different from the "result" achieved by the ranges of parameters recited in independent claim 1.

The Office Action has especially failed to establish a *prima facie* case of obviousness with respect to the feature "a total of cross-sectional areas of the plurality of the small holes is 1.2 to 5 times larger than a cross-sectional area of the bore," as recited in independent claim 1. Even if Dickey discloses the claimed range of diameters for the bore, and the claimed range of diameters for the small holes (which it does not), Dickey still fails to disclose the

ratio of the total of cross-sectional areas of the holes and the cross-sectional area of the bore or disclose any reason or benefit to be achieved from varying or controlling that ratio. Indeed, Dickey fails to disclose any ratio of the diameter of the bore to the total of cross-sectional areas of the plurality of small holes. Moreover, Dickey fails to recognize that the ratio between the total of cross-sectional areas of the plurality of small holes and the cross-sectional area of the bore is a result-effective variable.

C. The Advisory Action's Assertions are Erroneous

The Advisory Action characterizes Applicants' argument by stating "Applicant [sic] argues that Applicant [sic] need not show criticality for the claimed range of parameters unless (1) the parameter is recognized as a result-effective variables [sic], and (2) the claimed range is a mere optimization of the result-effective variable." Rather than showing that Dickey teaches that the claimed ranges are result-effective variables (which Dickey does not), the Advisory Action asserts "applicant [sic] does not show any variable in the claims in which is [sic] Applicant [sic] considered as a result-effective variable."

The Advisory Action's arguments are erroneous for several reasons. The Examiner has the burden to provide evidence that the claimed ranges of parameters are result-effective variables. Indeed, the burden is always placed on the Examiner to establish a *prima facie* case of obviousness when rejecting a claim under 35 U.S.C. §103(a) (see MPEP §2144.08(II)(A)).

Also, the statement "Applicant [sic] does not show any variable in the claims in which is [sic] Applicant [sic] considered as a result-effective variable" is without merit. Applicants' specification describes the claimed diameters and ranges as the "characterizing" aspect of the invention, for example, at page 4, lines 2-5 and page 4, line 24-page 5, line 13. In other words, none of the prior art (including Dickey) recognizes that the claimed ranges of parameters recited in independent claim 1 are result-effective variables - Applicants

discovered that the claimed ranges, if optimized, allow the cleaning liquid to be gently fed to a sponge roller and allow rectification of the liquid by the sponge roller. The prior art does not recognize the result-effective variables of independent claim 1.

**D. Dickey's Teachings Would not have
Motivated one of Ordinary Skill to have Modified
the Device of Dickey to Achieve Applicants' Invention**

Using the conventional wisdom, as demonstrated by Dickey, when a person of ordinary skill wants to distribute or replace a cleaning liquid as quick as possible, the person of ordinary skill would consider making a cross sectional area in a downstream side smaller so as to increase a pressure of liquid. In other words, Dickey teaches one of ordinary skill to decrease the cross-sectional area of the holes located on the downstream side of the core so as to increase the pressure of the liquid. The core of claim 1 has a structure that does not increase the pressure of the fluid flowing downstream but feeds the fluid gently to a sponge roller based on the claimed ranges of parameters (see also page 5, lines 6-13 of Applicants' specification).

The teachings of the prior art would not have lead one of ordinary skill to modify the device of Dickey to achieve the invention of independent claim 1. The teachings of Dickey would have lead one of ordinary skill to simply decrease the downstream cross-sectional area so as to increase the pressure of the liquid.

IV. Conclusion

For all of the reasons discussed above, it is respectfully submitted that the Final Rejection includes legal and factual deficiencies and that all of the pending claims are in condition for allowance. Because Dickey fails to disclose, teach or render obvious the features of independent claim 1, withdrawal of the Final Rejection and allowance of this application is respectfully requested.